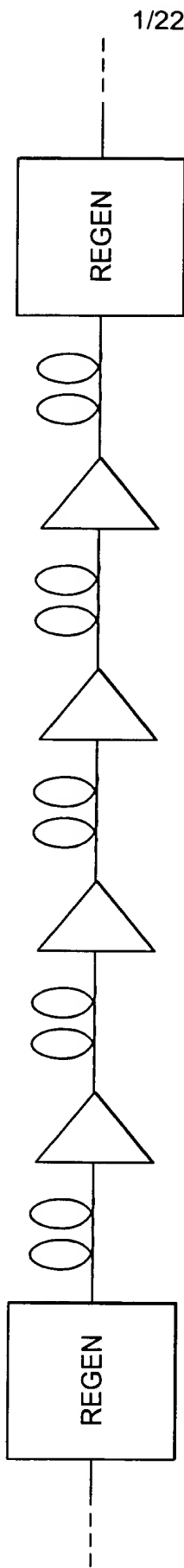


100

OPTICAL
AMPLIFIER



1/22

FIG. 1

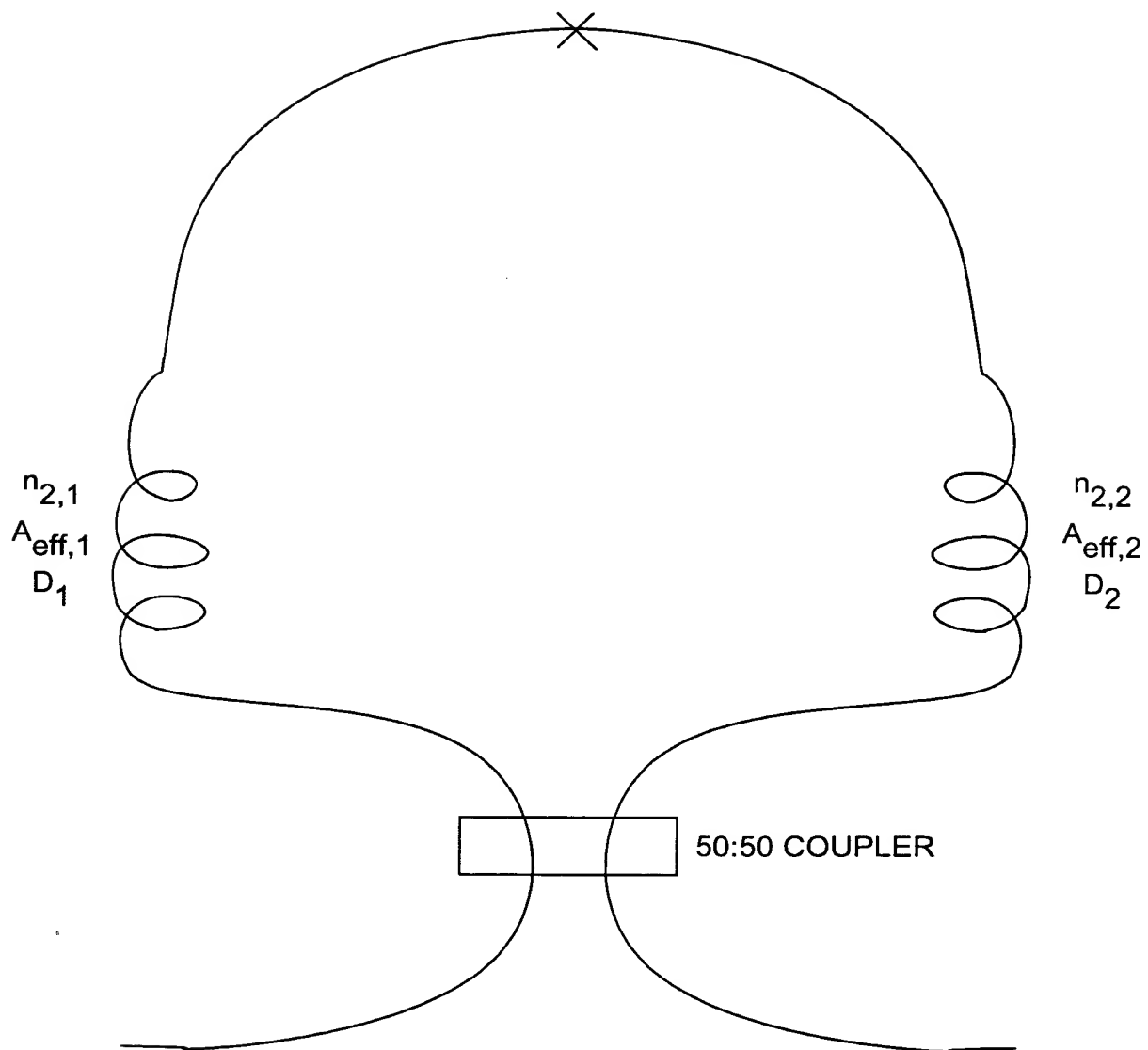
200

FIG. 2

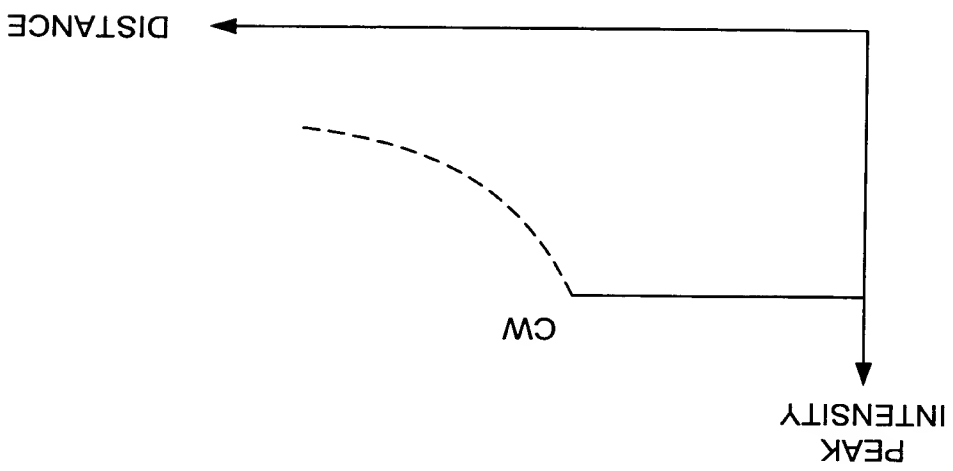


FIG. 3A

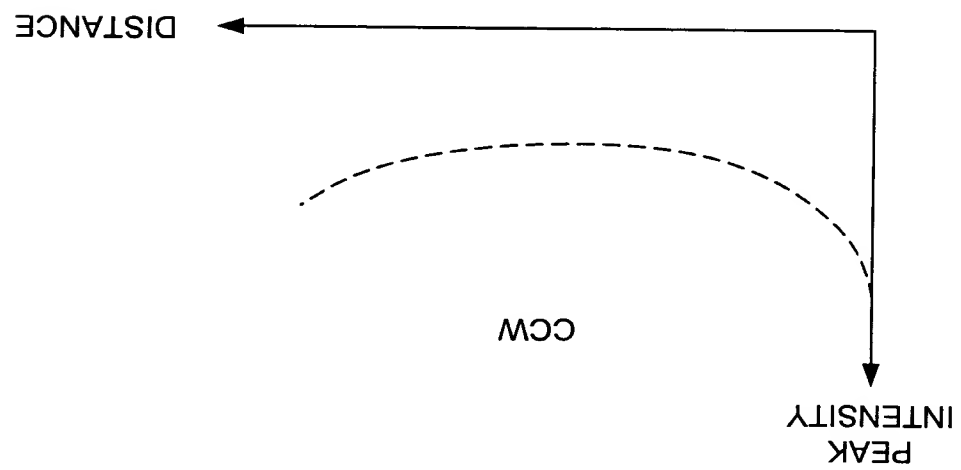


FIG. 3B

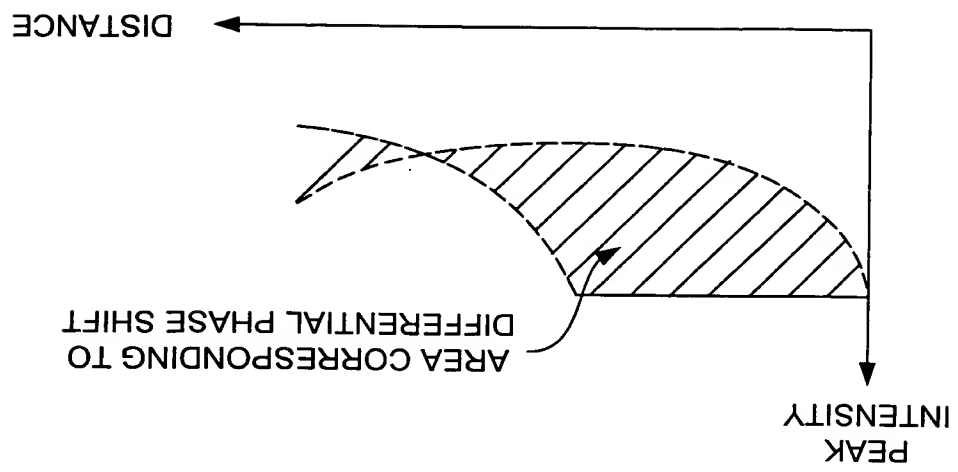
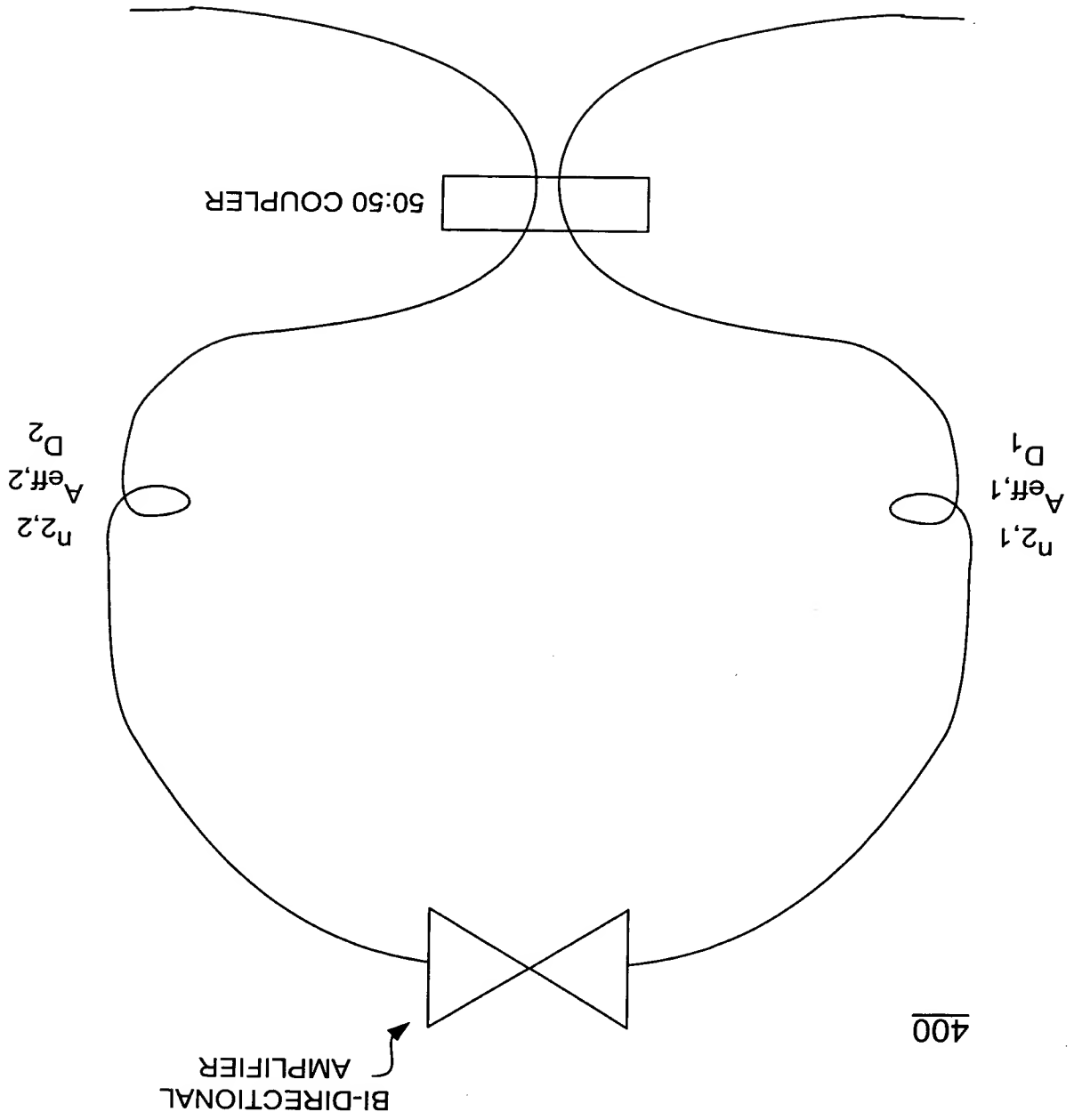


FIG. 3C

FIG. 4



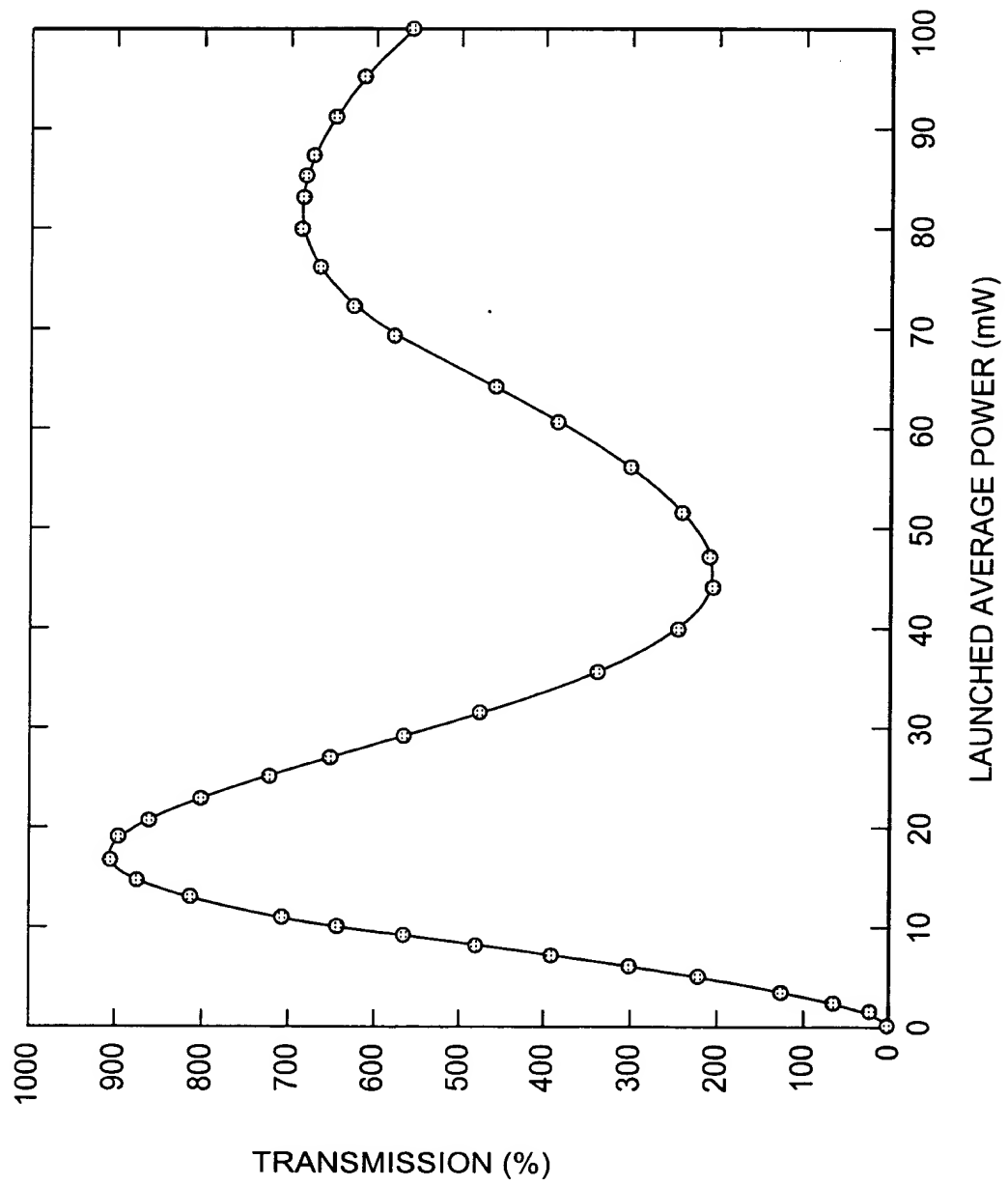
500

FIG. 5

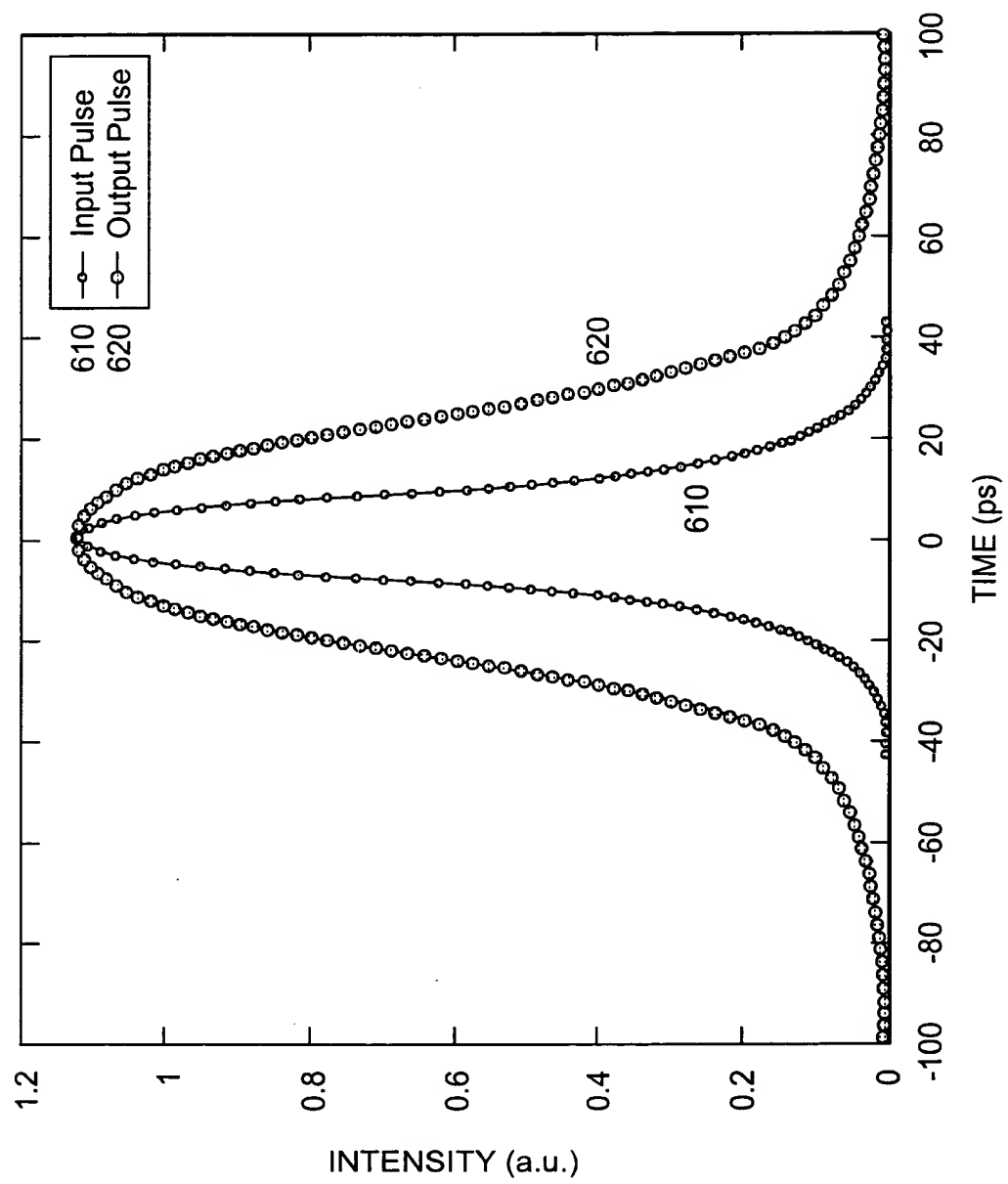


FIG. 6A

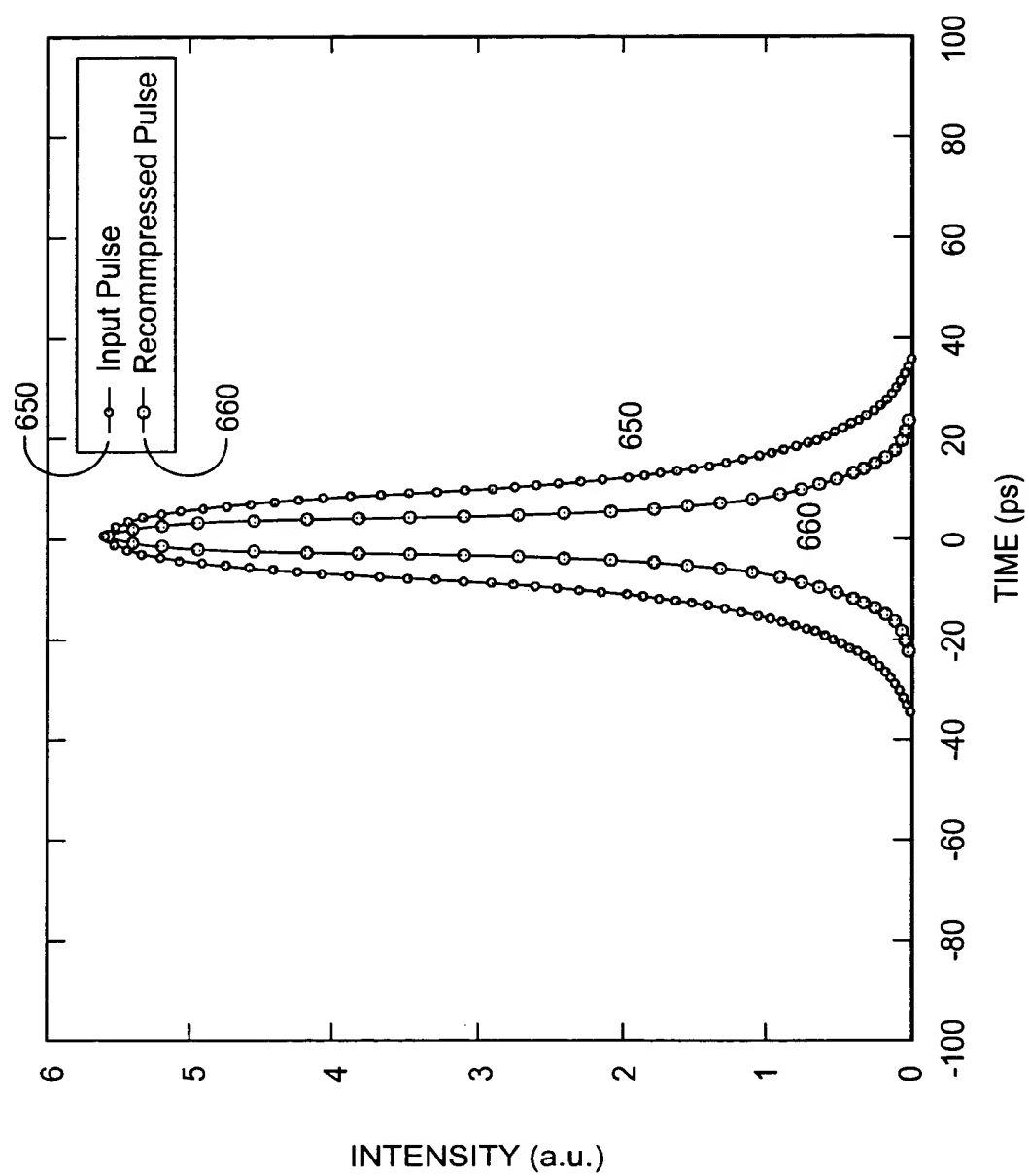


FIG. 6B



FIG. 7

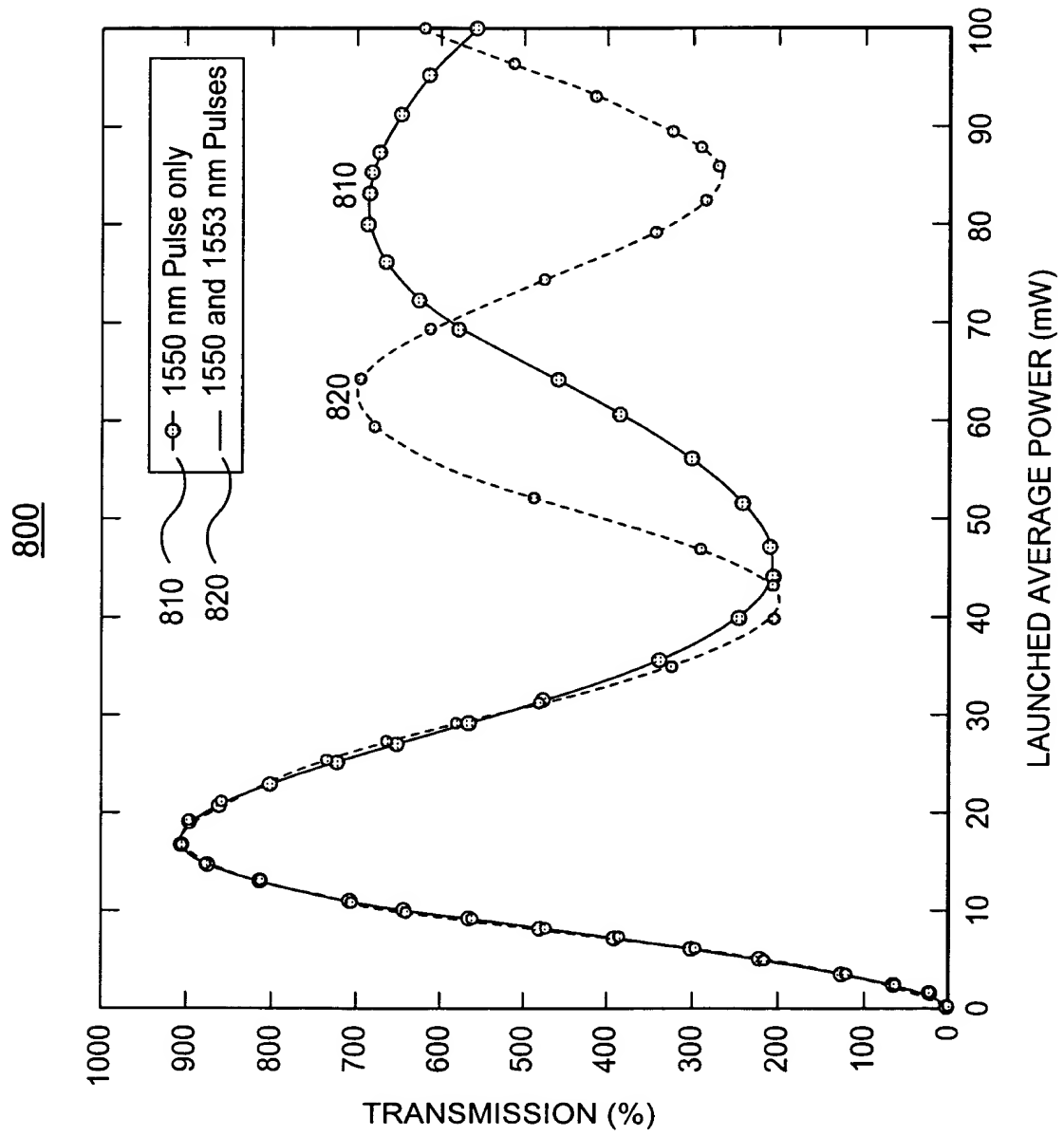


FIG. 8

10/22

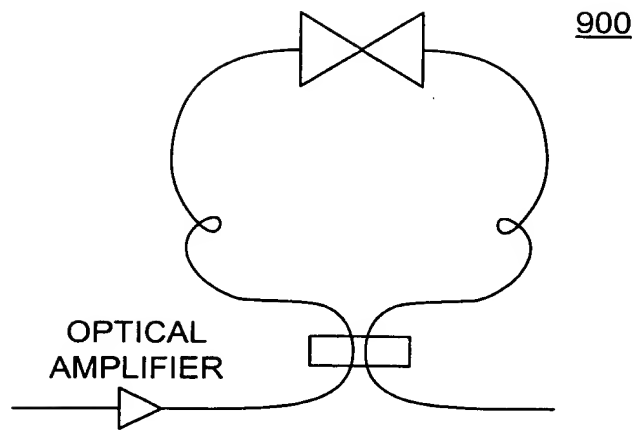


FIG. 9A

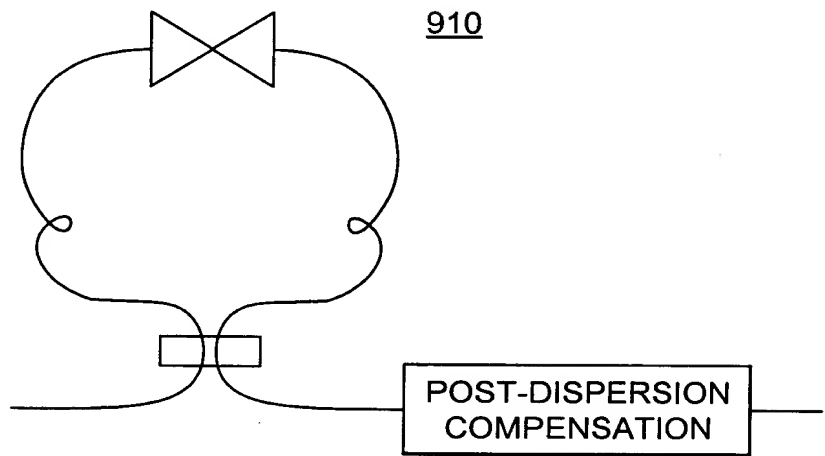


FIG. 9B

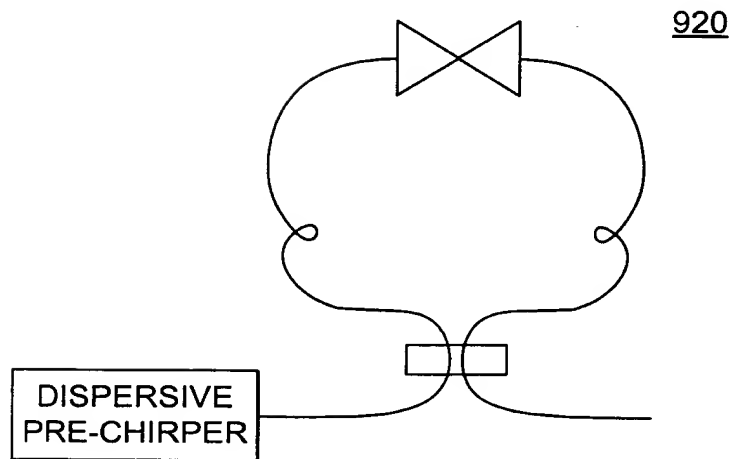


FIG. 9C

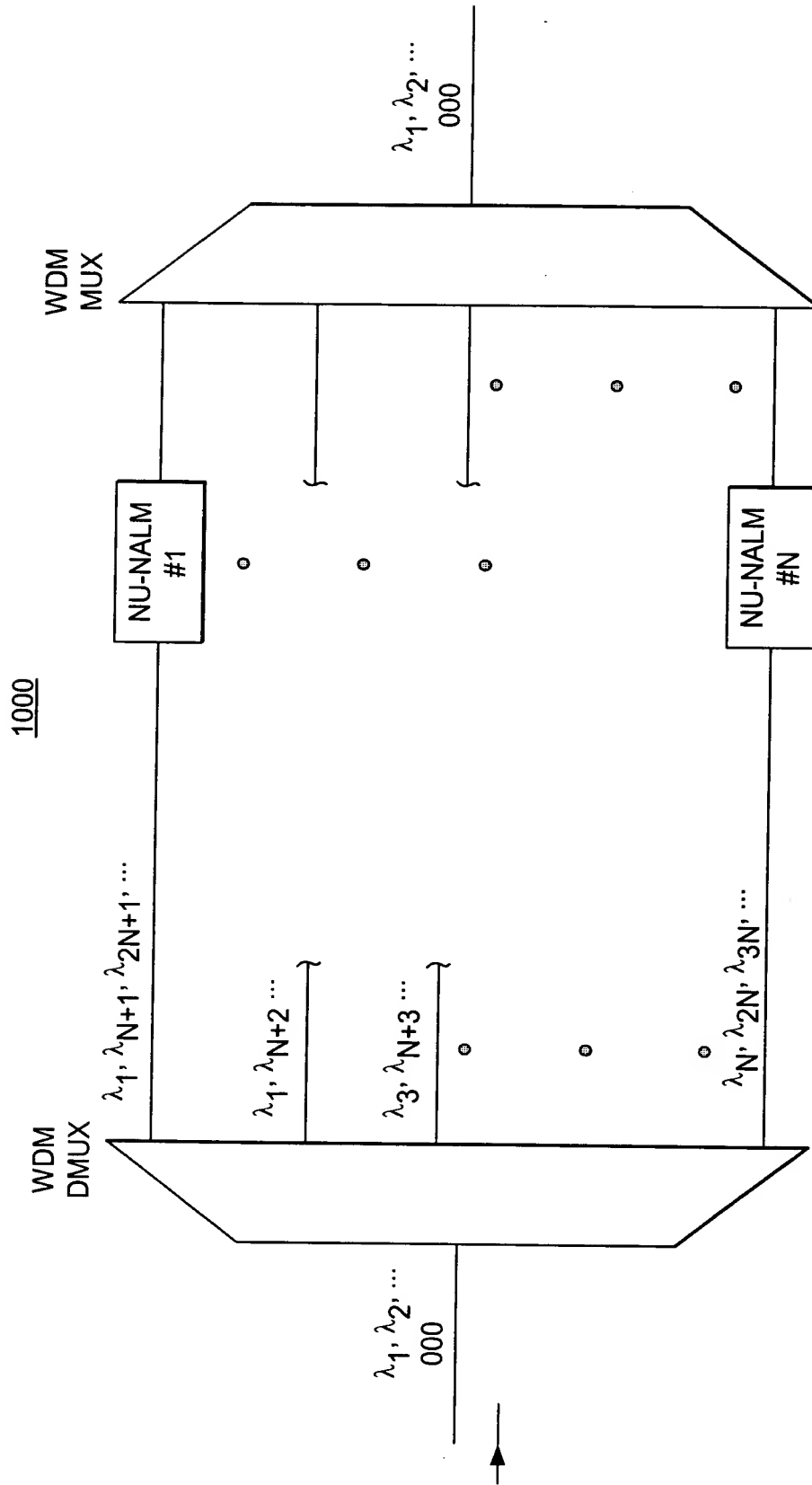


FIG. 10

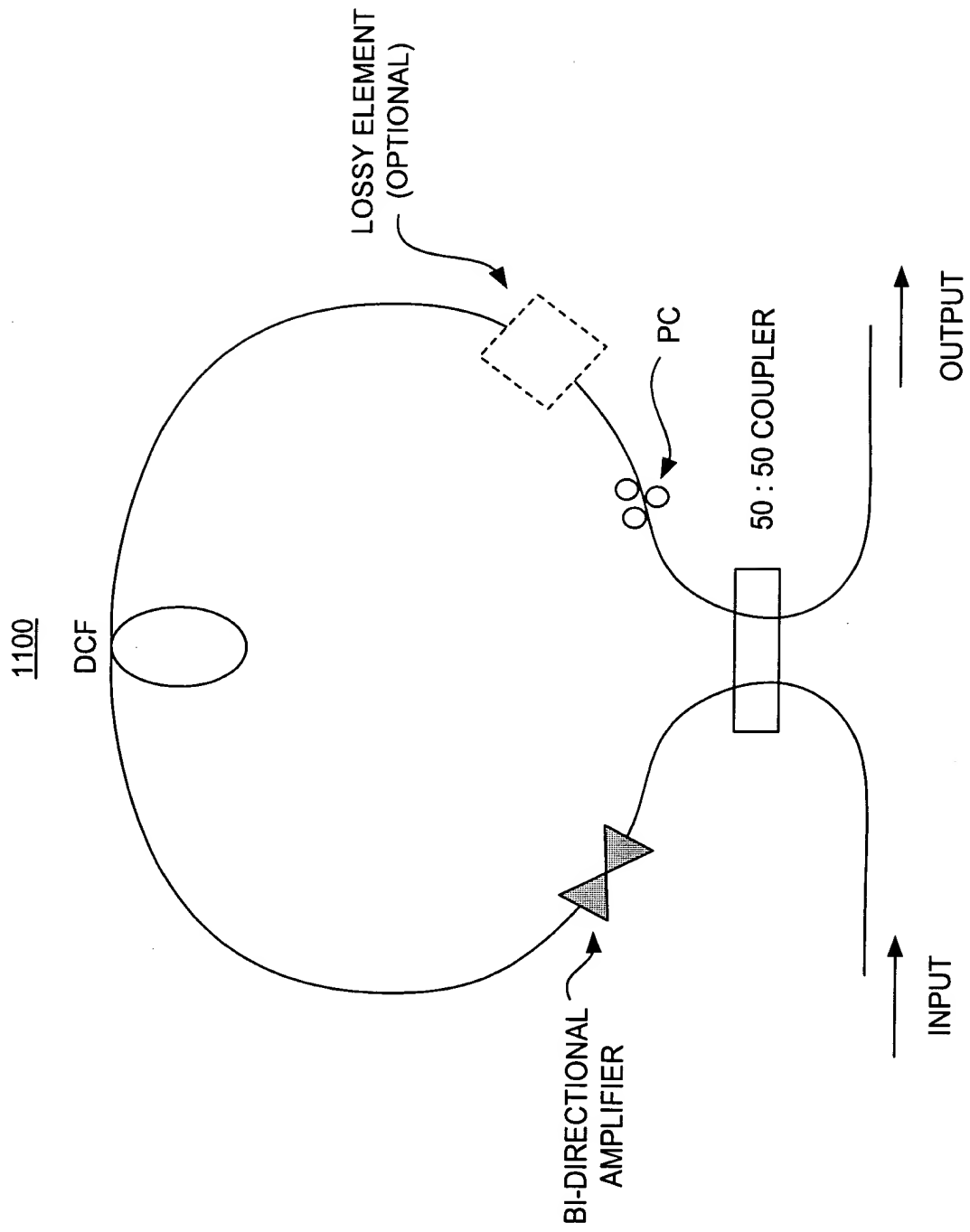


FIG. 11

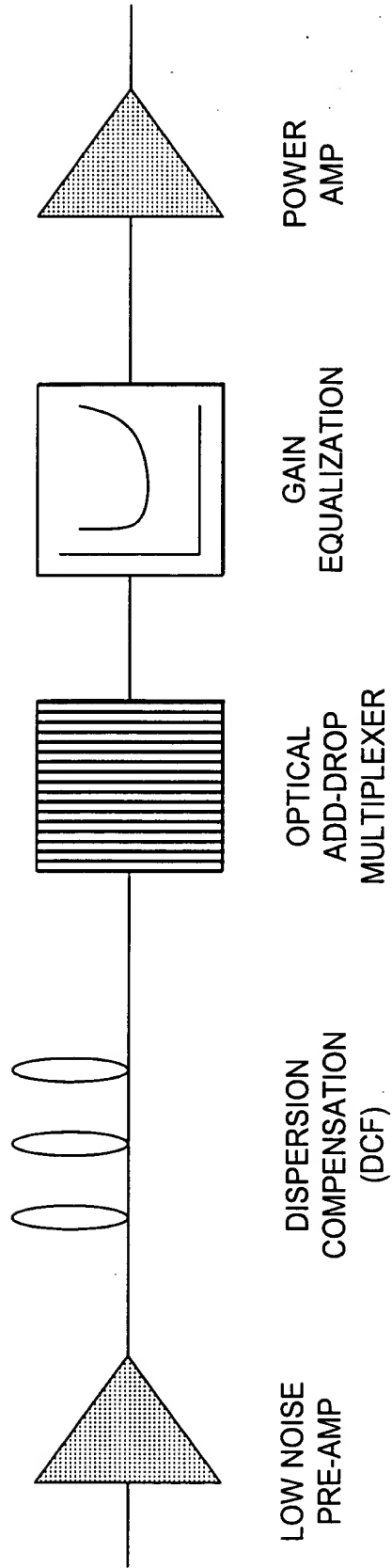
1200

FIG. 12

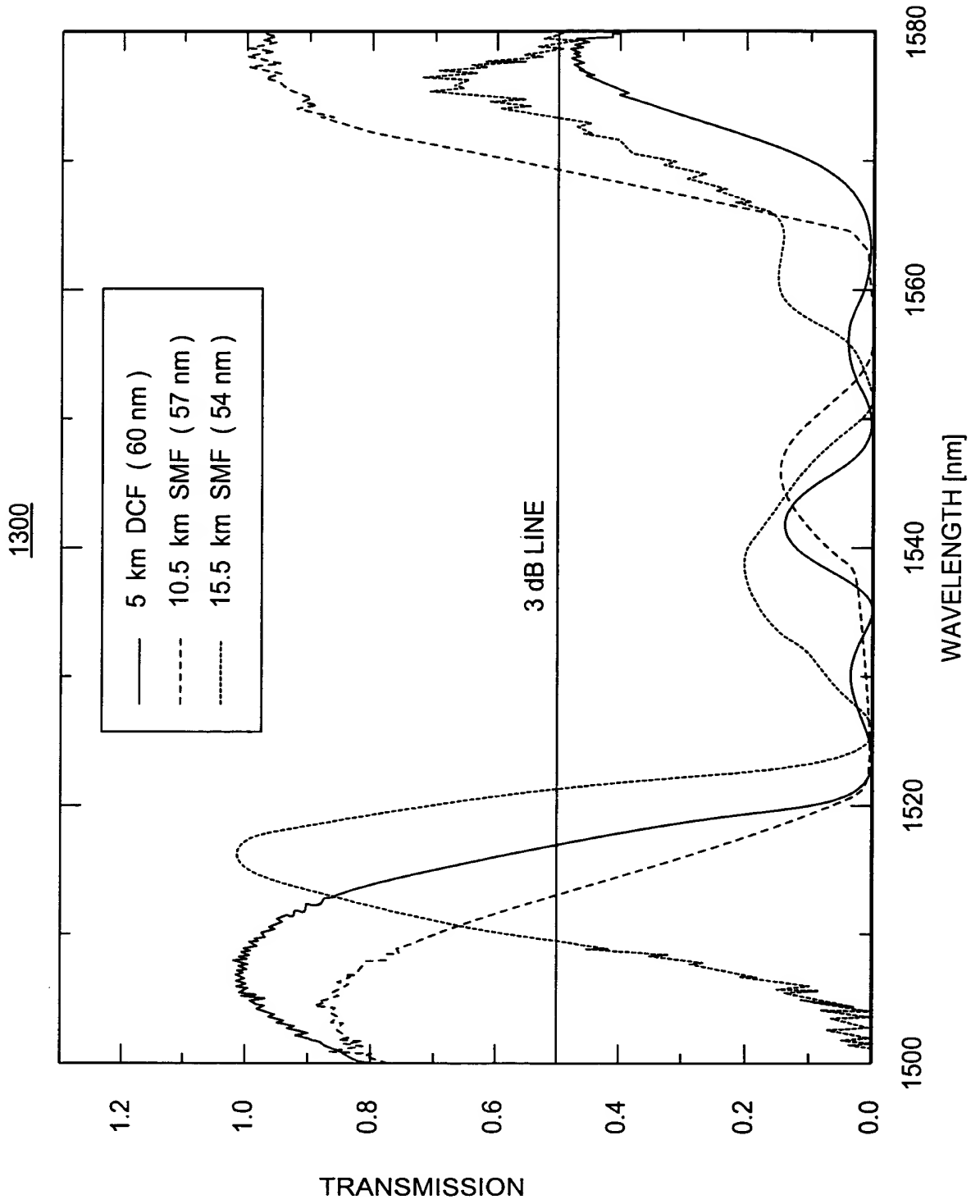
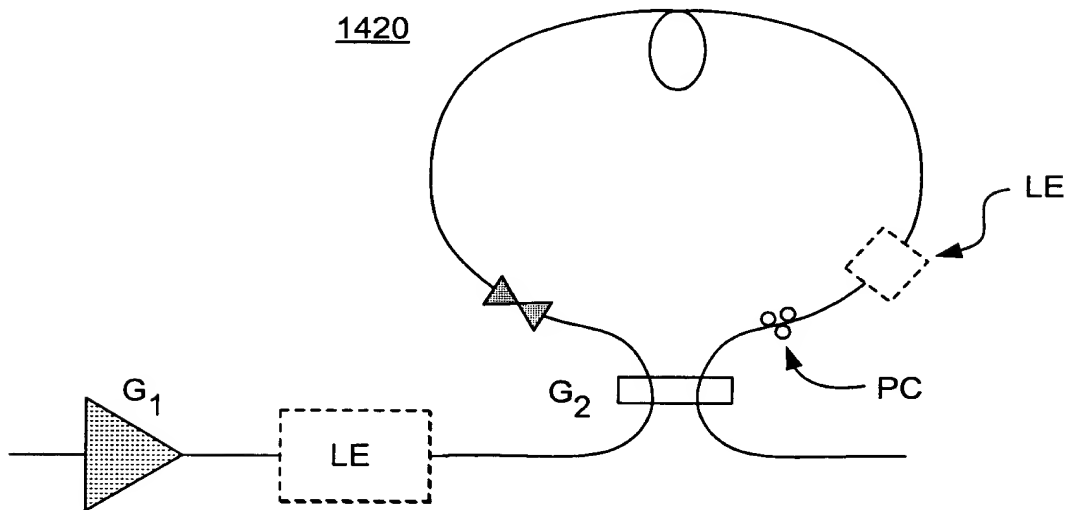
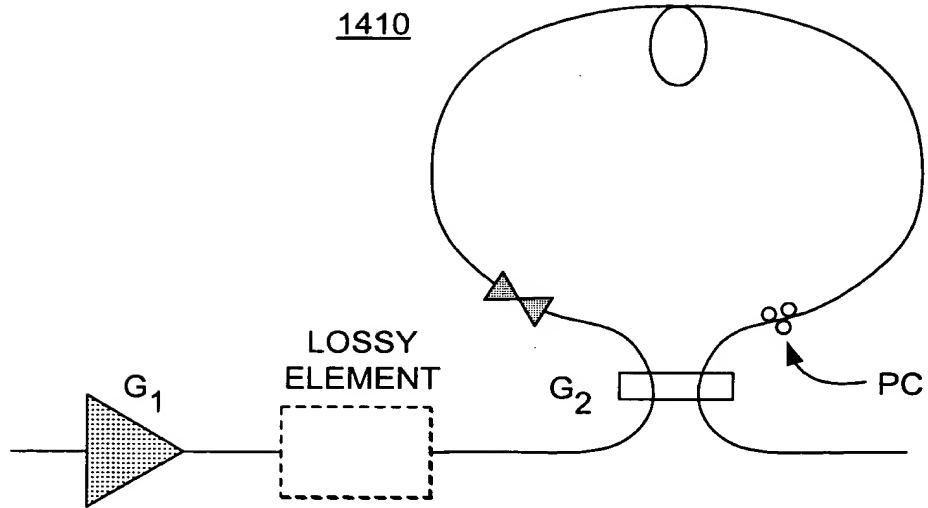


FIG. 13

15/22



1430

P_{in} (dBm)	G_1 (dB)	G_2 (dB)	P_{out} (dBm)
-11	0	30	9.18
-11	5	25	9.17
-11	10	20	9.16
-11	15	15	9.10

FIG. 14C

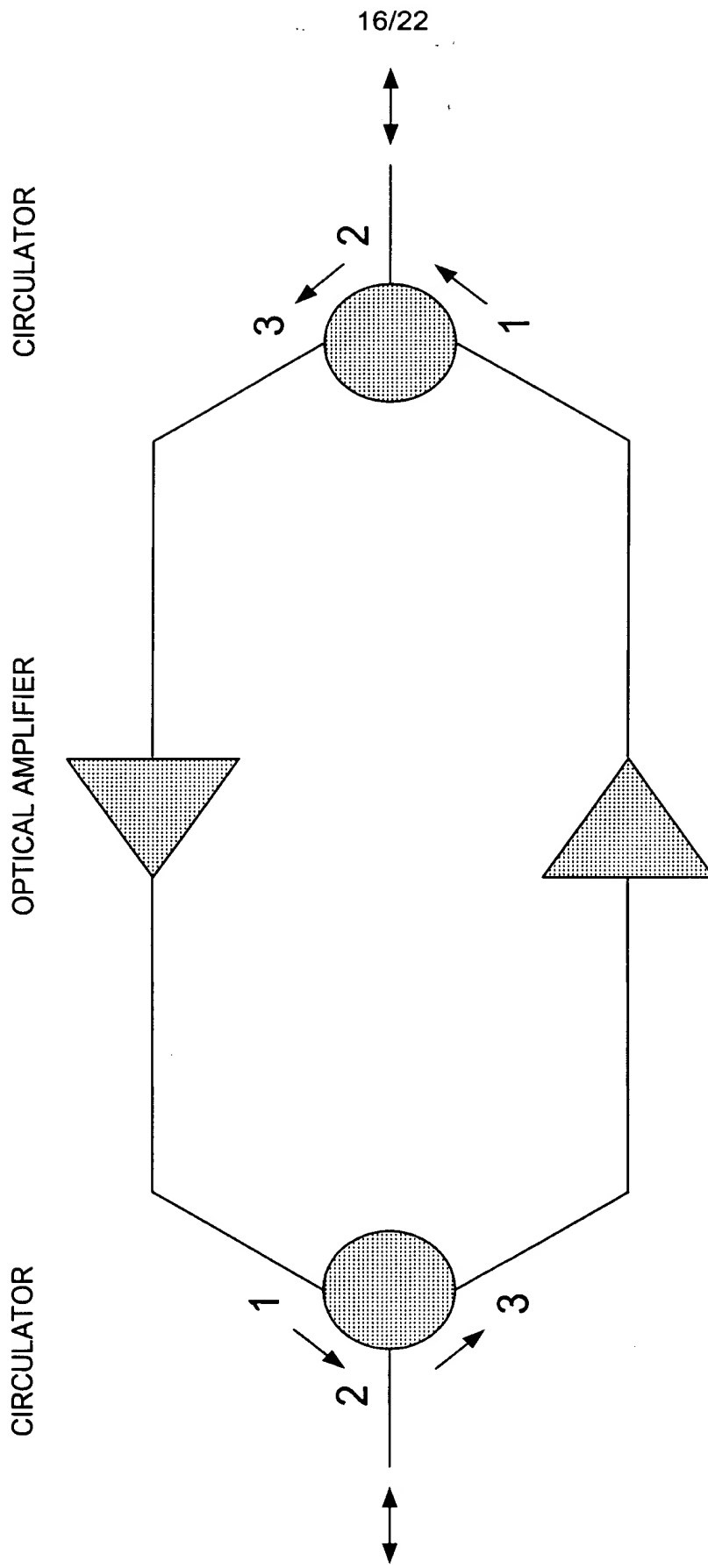


FIG. 15

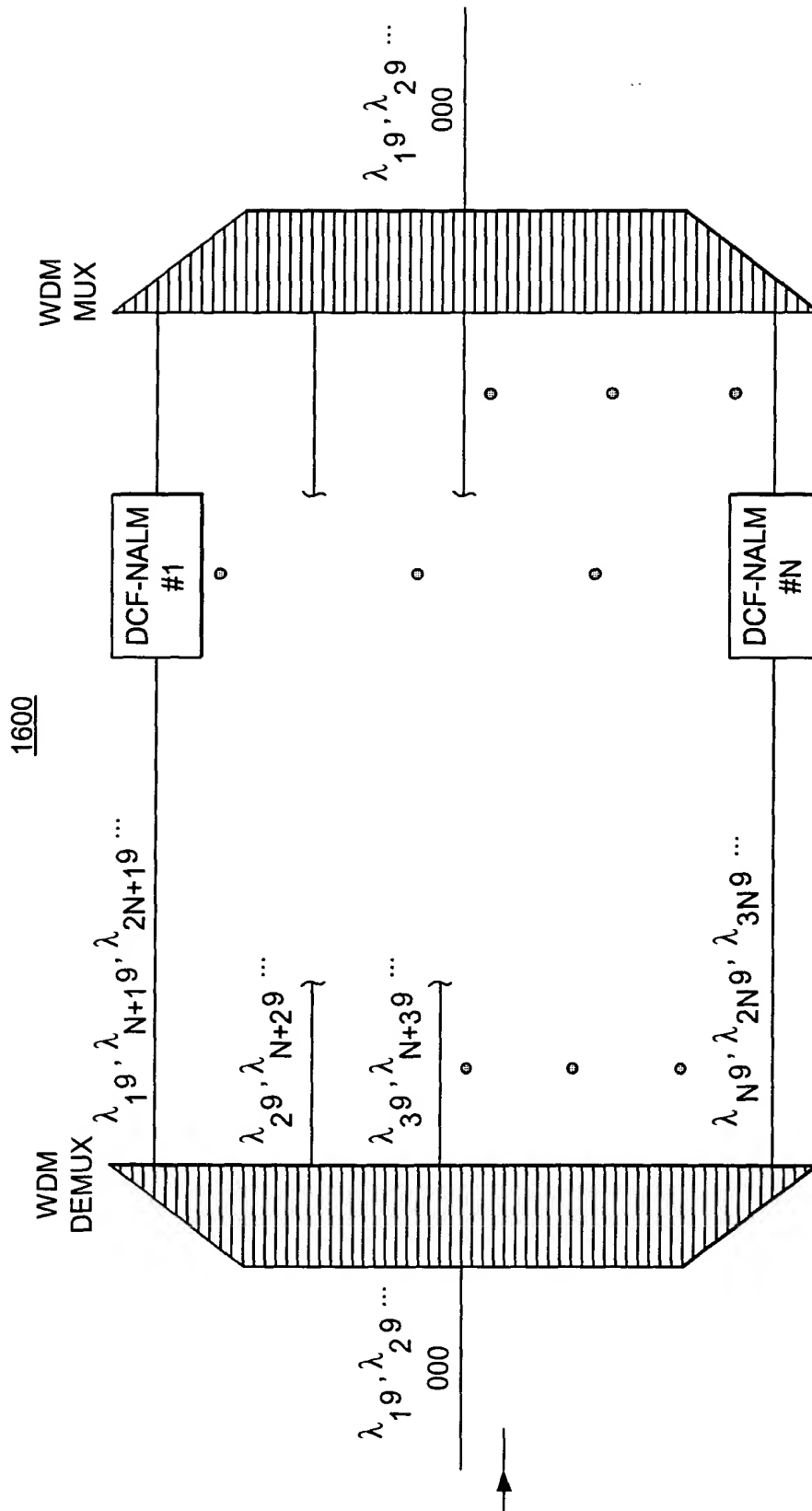


FIG. 16

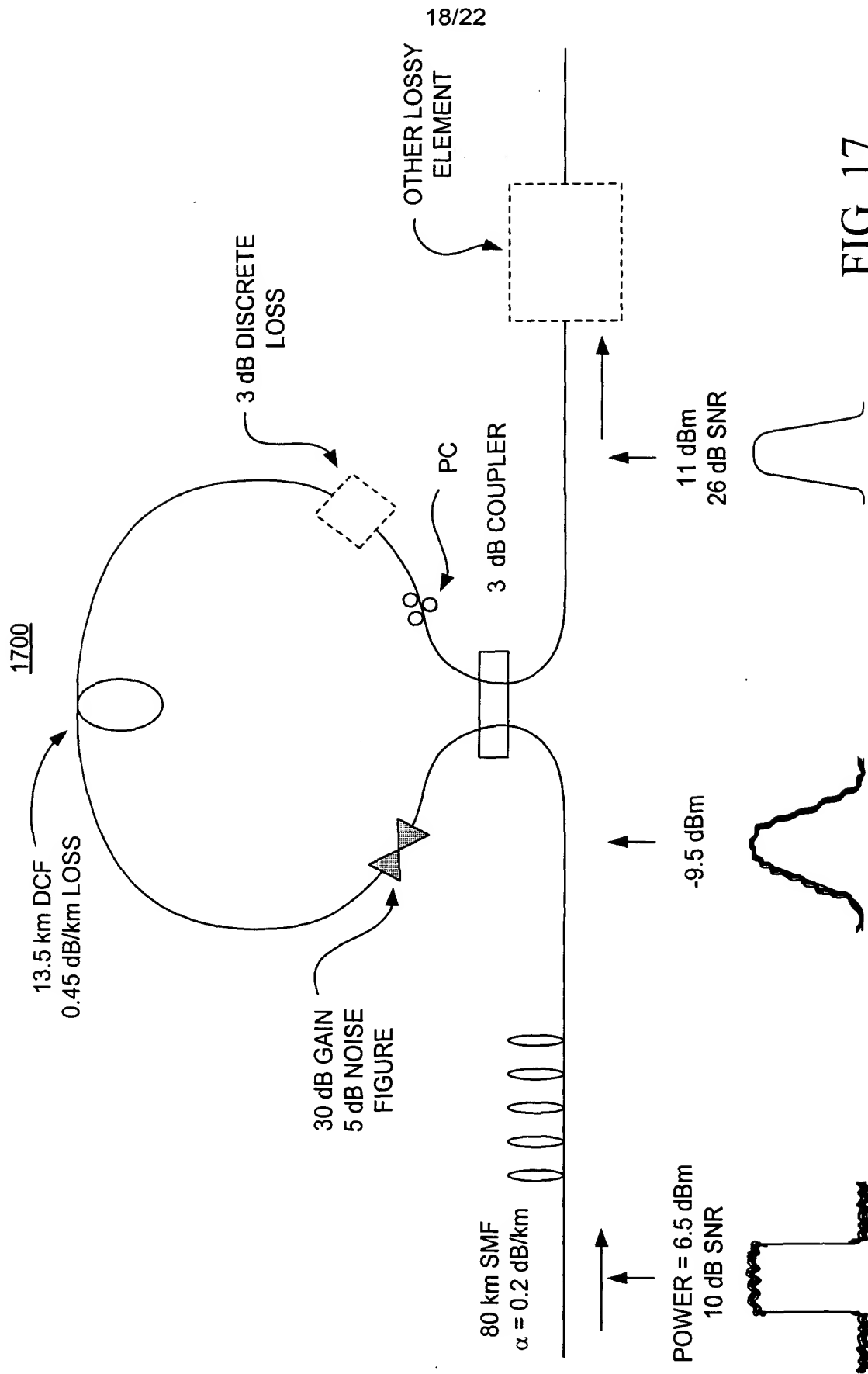


FIG. 17

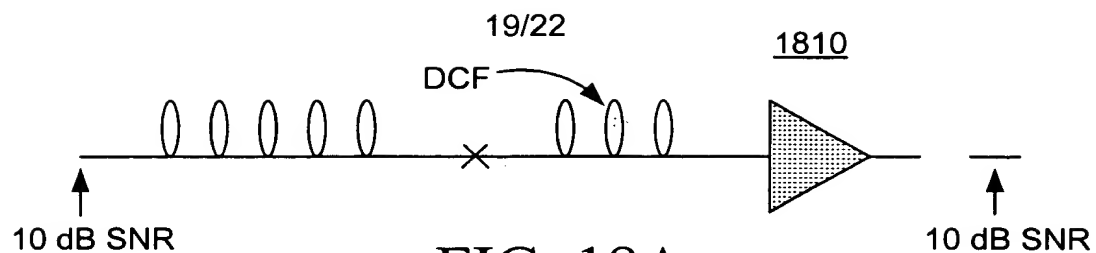
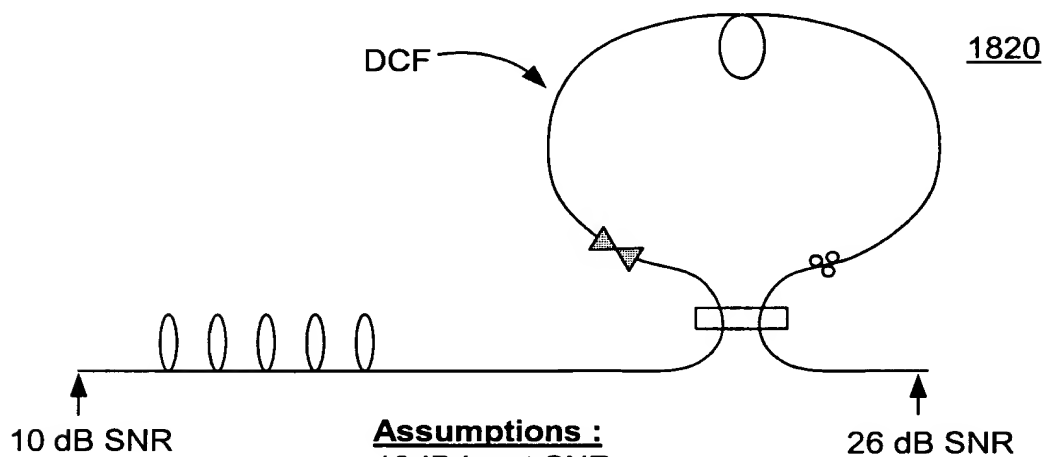


FIG. 18A



Assumptions :

**-10dB input SNR
(5 GHz bandwidth)
-5 dB amplifier NF**

Results :

16 dB improvement in SNR

FIG. 18B

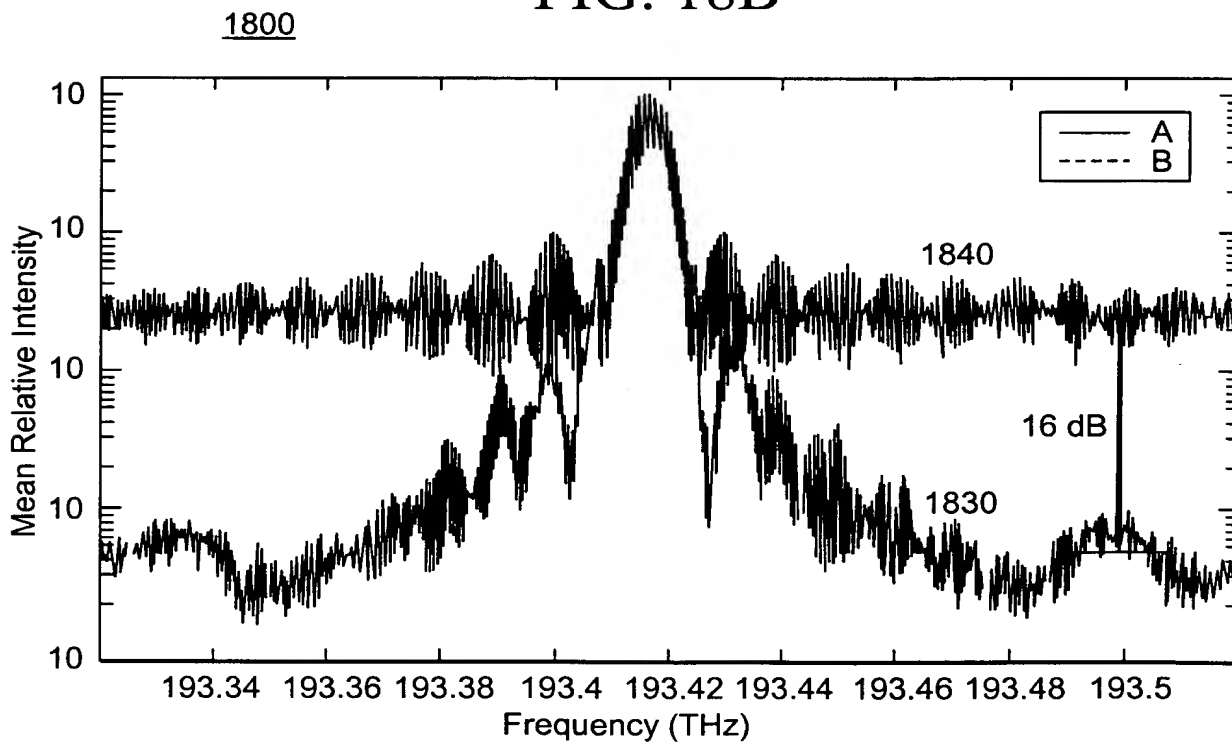


FIG. 18C

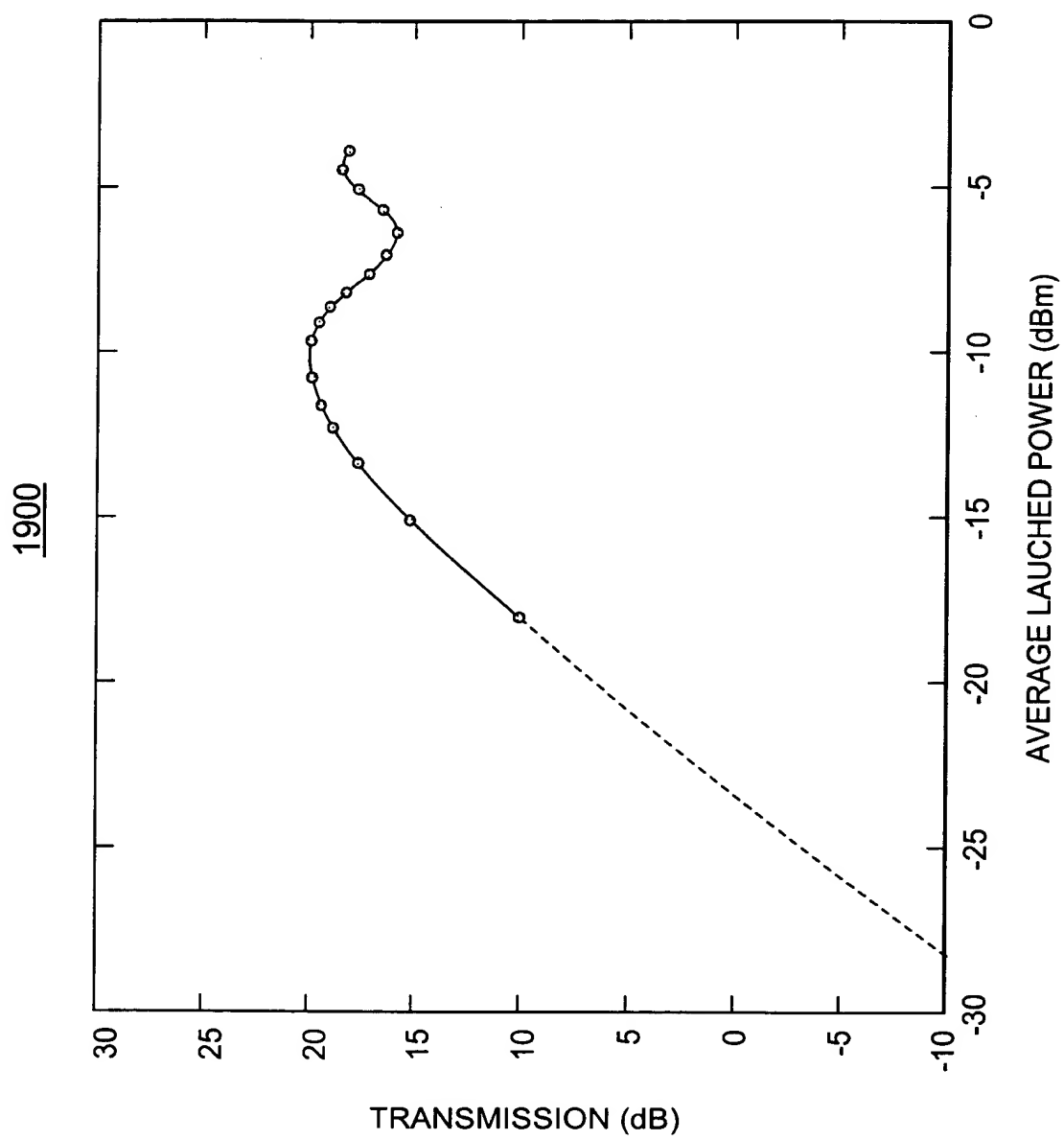


FIG. 19

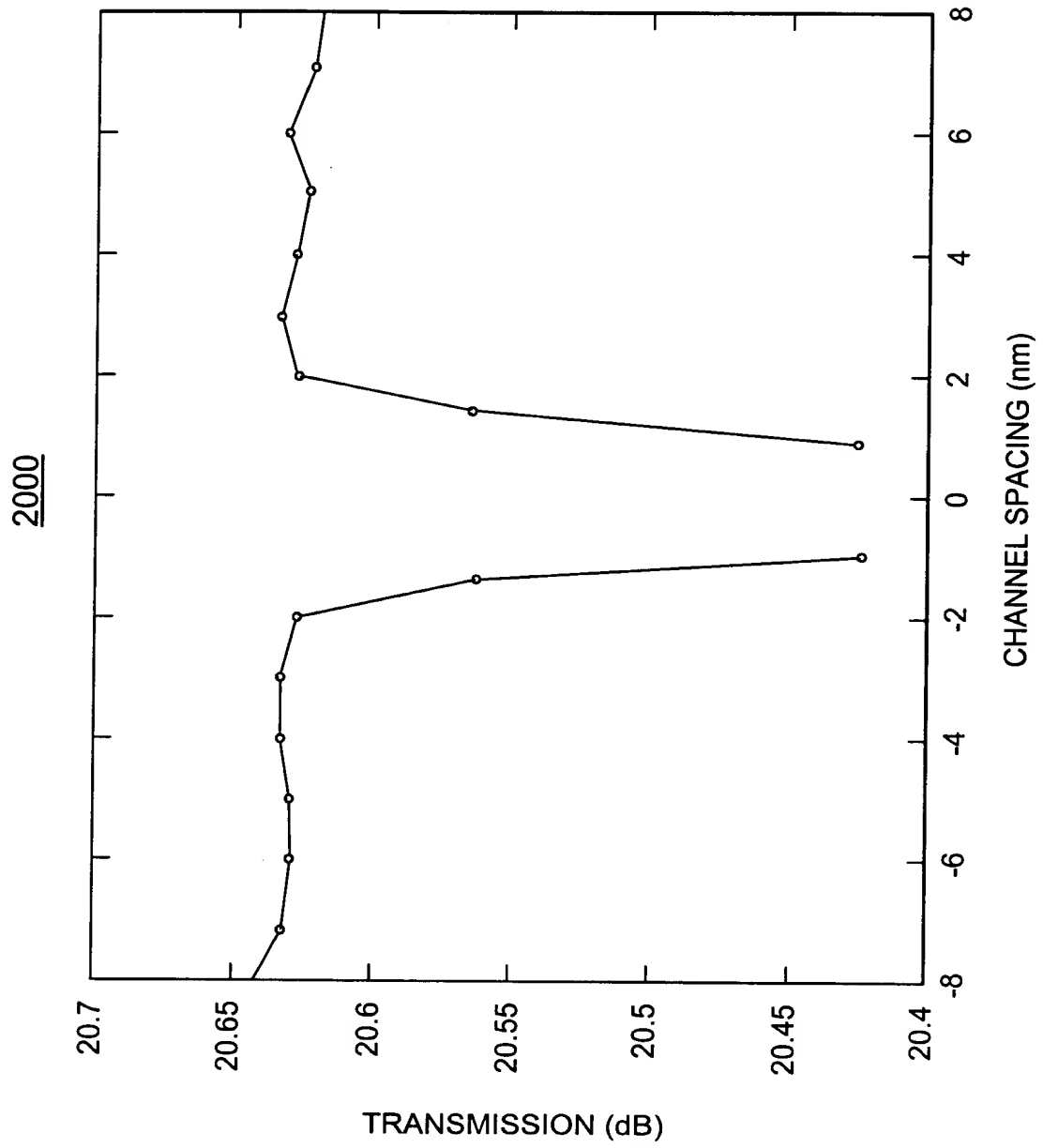


FIG. 20

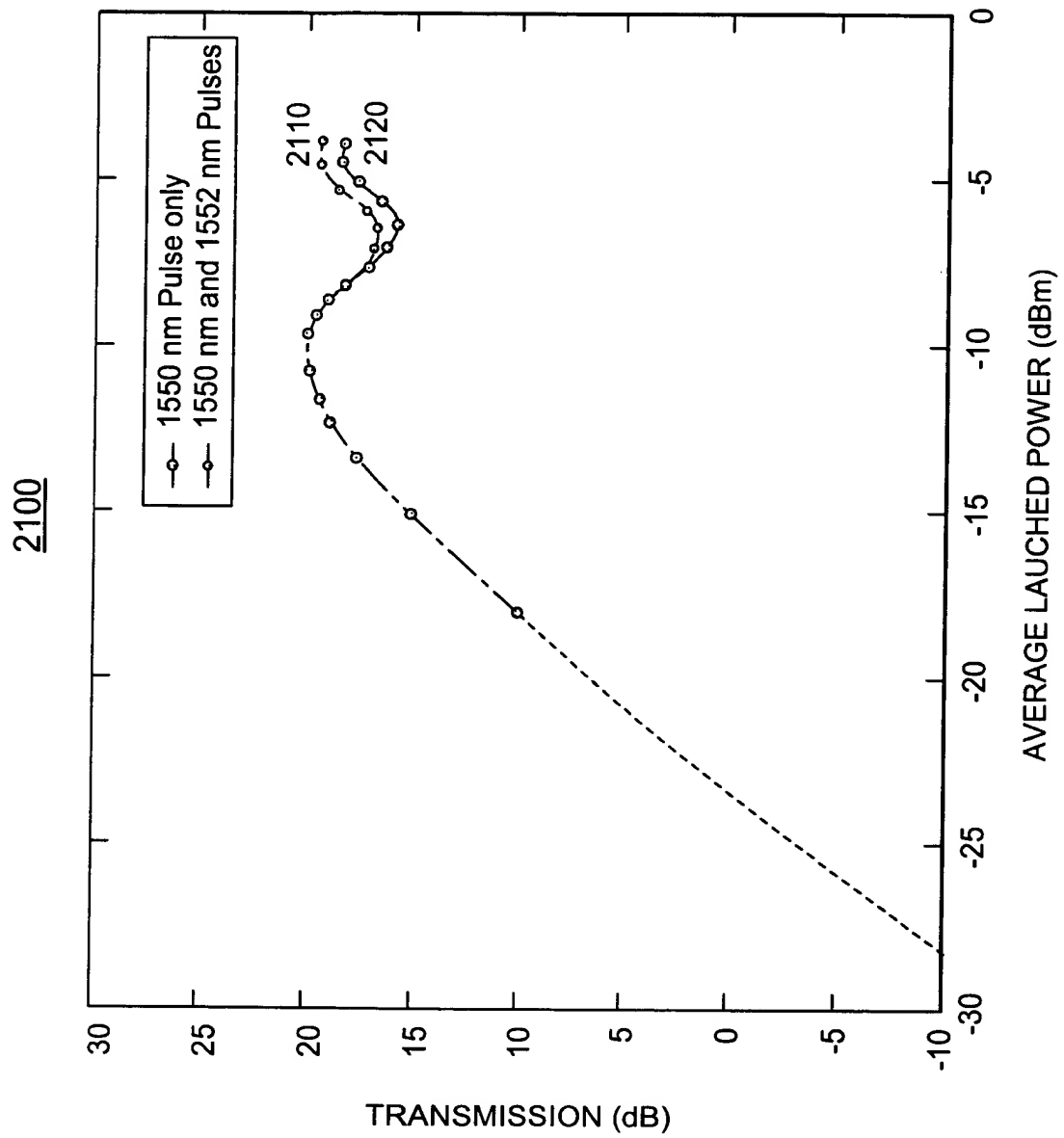


FIG. 21